## ELECTRIC RESISTANCE HEATING

#### 780 CMR 3615.1 GENERAL

**3615.1.1 General**: Electric baseboard convectors shall be listed and labeled and shall be installed in accordance with the manufacturer's installation instructions and 527 CMR 12.00.

# 780 CMR 3615.2 RADIANT HEATING SYSTEMS

**3615.2.1 General**: Radiant heating systems shall be listed and labeled and shall be installed in accordance with the manufacturer's installation instructions and 527 CMR 12.00.

**3615.2.2 Clearances**: Clearances for radiant heating panels or elements to any wiring, outlet boxes, and junction boxes used for installing electrical devices or mounting lighting fixtures shall comply with manufacturer's listing requirements and 527 CMR 12.00.

- **3615.2.3 Installation of radiant panels on wood framing**: Radiant panels installed on wood framing shall only be so installed if so listed by the manufacturer and additionally shall conform to the following requirements:
  - 1. Heating panels shall be installed parallel to framing members and secured to the surface of framing members or mounted between framing members.
  - 2. Panels shall be nailed or stapled only though the unheated portions provided for this purpose and shall not be fastened at any point closer than ¼ inch (6.4 mm) from an element.
  - 3. Unless listed and labeled for field cutting, heating panels shall be installed as complete units.

**3615.2.4 Installation of radiant panels in concrete or masonry**: Radiant heating systems installed in concrete or masonry shall only installed if so listed by the manufacturer and additionally conform to the following requirements:

- 1. Radiant heating systems shall be identified as being suitable for the installation and shall be secured in place as specified in the manufacturer's installation instructions.
- 2. Radiant heating panels or radiant heating panel sets shall not be installed where they bridge expansion joints unless protected from expansion and contraction

**3615.2.5 Installation of radiant panels in gypsum assemblies**: Radiant heating systems shall only be used in gypsum assemblies when so listed by the manufacturer and such panel operating temperatures shall not exceed 125?F (52?C).

**3615.2.6 Finish surfaces**: Finish materials installed over radiant heating panels or systems shall be installed in accordance with the manufacturer's installation instructions. Surfaces shall be secured so that nails or other fastenings do not pierce the radiant heating elements.

#### 780 CMR 3615.3 DUCT HEATERS

**3615.3.1 General**: Electric duct heaters shall be listed and labeled and shall be installed in accordance with the manufacturer's installation instructions and 527 CMR 12.

3615.3.2 Installation: Electric duct heaters shall be installed so that they will not create a fire hazard. Class I ducts, duct coverings and linings shall be interrupted at each heater to provide the clearances specified in the manufacturer's installation instructions. Such interruptions are not required for duct heaters listed and labeled for zero clearance from combustible materials. Insulation installed in the immediate area of each heater shall be classified for the maximum temperature produced on the duct surface.

3615.3.3 Installation with heat pumps and air conditioners: Duct heaters located within four feet

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(1219 mm) of a heat pump or air conditioner shall be listed and labeled for such installations. The heat pump or air conditioner shall additionally be listed and labeled for such duct heater installations.

**3615.3.4 Access**: Duct heaters shall be accessible for servicing, and clearance shall be maintained to permit

adjustment, servicing, and replacement of controls and heating elements in accordance with the manufacturer's listing/installation requirements and otherwise in accordance with any applicable requirements of 780 CMR 36.

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